

JS 44 (Rev. 11/04)

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON THE REVERSE OF THE FORM.)

I. (a) PLAINTIFFS

JOSEPH H. WEST

(b) County of Residence of First Listed Plaintiff Broward County, FL
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorney's (Firm Name, Address, and Telephone Number)

Jennifer Courtney, Esquire, 301 Oxford Valley Road, Suite 1902A,
Yardley, PA 19067

DEFENDANTS

ALL AMERICAN SPORTS SHOP, VENUS KNITTING MILLS
and PRO-REF SPORTSWEAR

County of Residence of First Listed Defendant Bergen County, NJ
(IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE
LAND INVOLVED.

Attorneys (If Known)

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff
☐ 2 U.S. Government Defendant
☒ 3 Federal Question (U.S. Government Not a Party)
☐ 4 Diversity (Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)

- | | | | | | |
|---|----------------------------|----------------------------|---|----------------------------|----------------------------|
| | PTF | DEF | | PTF | DEF |
| Citizen of This State | <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | Incorporated or Principal Place of Business In This State | <input type="checkbox"/> 4 | <input type="checkbox"/> 4 |
| Citizen of Another State | <input type="checkbox"/> 2 | <input type="checkbox"/> 2 | Incorporated and Principal Place of Business In Another State | <input type="checkbox"/> 5 | <input type="checkbox"/> 5 |
| Citizen or Subject of a Foreign Country | <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | Foreign Nation | <input type="checkbox"/> 6 | <input type="checkbox"/> 6 |

IV. NATURE OF SUIT (Place an "X" in One Box Only)

CONTRACT	TORTS	FORFEITURE/PENALTY	BANKRUPTCY	OTHER STATUTES
<input type="checkbox"/> 110 Insurance <input type="checkbox"/> 120 Marine <input type="checkbox"/> 130 Miller Act <input type="checkbox"/> 140 Negotiable Instrument <input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment <input type="checkbox"/> 151 Medicare Act <input type="checkbox"/> 152 Recovery of Defaulted Student Loans (Excl. Veterans) <input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits <input type="checkbox"/> 160 Stockholders' Suits <input type="checkbox"/> 190 Other Contract <input type="checkbox"/> 195 Contract Product Liability <input type="checkbox"/> 196 Franchise	PERSONAL INJURY <input type="checkbox"/> 310 Airplane <input type="checkbox"/> 315 Airplane Product Liability <input type="checkbox"/> 320 Assault, Libel & Slander <input type="checkbox"/> 330 Federal Employers' Liability <input type="checkbox"/> 340 Marine <input type="checkbox"/> 345 Marine Product Liability <input type="checkbox"/> 350 Motor Vehicle <input type="checkbox"/> 355 Motor Vehicle Product Liability <input type="checkbox"/> 360 Other Personal Injury PERSONAL INJURY <input type="checkbox"/> 362 Personal Injury - Med. Malpractice <input type="checkbox"/> 365 Personal Injury - Product Liability <input type="checkbox"/> 368 Asbestos Personal Injury Product Liability LABOR <input type="checkbox"/> 370 Other Fraud <input type="checkbox"/> 371 Truth in Lending <input type="checkbox"/> 380 Other Personal Property Damage <input type="checkbox"/> 385 Property Damage Product Liability	<input type="checkbox"/> 610 Agriculture <input type="checkbox"/> 620 Other Food & Drug <input type="checkbox"/> 625 Drug Related Seizure of Property 21 USC 881 <input type="checkbox"/> 630 Liquor Laws <input type="checkbox"/> 640 R.R. & Truck <input type="checkbox"/> 650 Airline Regs. <input type="checkbox"/> 660 Occupational Safety/Health <input type="checkbox"/> 690 Other	<input type="checkbox"/> 422 Appeal 28 USC 158 <input type="checkbox"/> 423 Withdrawal 28 USC 157 PROPERTY RIGHTS <input type="checkbox"/> 820 Copyrights <input checked="" type="checkbox"/> 830 Patent <input type="checkbox"/> 840 Trademark SOCIAL SECURITY <input type="checkbox"/> 861 HIA (1395ff) <input type="checkbox"/> 862 Black Lung (923) <input type="checkbox"/> 863 DIWC/DIWW (405(g)) <input type="checkbox"/> 864 SSID Title XVI <input type="checkbox"/> 865 RSI (405(g)) FEDERAL TAX SUITS <input type="checkbox"/> 870 Taxes (U.S. Plaintiff or Defendant) <input type="checkbox"/> 871 IRS—Third Party 26 USC 7609	<input type="checkbox"/> 400 State Reapportionment <input type="checkbox"/> 410 Antitrust <input type="checkbox"/> 430 Banks and Banking <input type="checkbox"/> 450 Commerce <input type="checkbox"/> 460 Deportation <input type="checkbox"/> 470 Racketeer Influenced and Corrupt Organizations <input type="checkbox"/> 480 Consumer Credit <input type="checkbox"/> 490 Cable/Sat TV <input type="checkbox"/> 810 Selective Service <input type="checkbox"/> 850 Securities/Commodities/Exchange <input type="checkbox"/> 875 Customer Challenge 12 USC 3410 <input type="checkbox"/> 890 Other Statutory Actions <input type="checkbox"/> 891 Agricultural Acts <input type="checkbox"/> 892 Economic Stabilization Act <input type="checkbox"/> 893 Environmental Matters <input type="checkbox"/> 894 Energy Allocation Act <input type="checkbox"/> 895 Freedom of Information Act <input type="checkbox"/> 900 Appeal of Fee Determination Under Equal Access to Justice <input type="checkbox"/> 950 Constitutionality of State Statutes
REAL PROPERTY <input type="checkbox"/> 210 Land Condemnation <input type="checkbox"/> 220 Foreclosure <input type="checkbox"/> 230 Rent Lease & Ejectment <input type="checkbox"/> 240 Torts to Land <input type="checkbox"/> 245 Tort Product Liability <input type="checkbox"/> 290 All Other Real Property	CIVIL RIGHTS <input type="checkbox"/> 441 Voting <input type="checkbox"/> 442 Employment <input type="checkbox"/> 443 Housing/Accommodations <input type="checkbox"/> 444 Welfare <input type="checkbox"/> 445 Amer. w/Disabilities - Employment <input type="checkbox"/> 446 Amer. w/Disabilities - Other <input type="checkbox"/> 440 Other Civil Rights	PRISONER PETITIONS <input type="checkbox"/> 510 Motions to Vacate Sentence Habeas Corpus: <input type="checkbox"/> 530 General <input type="checkbox"/> 535 Death Penalty <input type="checkbox"/> 540 Mandamus & Other <input type="checkbox"/> 550 Civil Rights <input type="checkbox"/> 555 Prison Condition		

V. ORIGIN

(Place an "X" in One Box Only)

- ☒ 1 Original Proceeding
☐ 2 Removed from State Court
☐ 3 Remanded from Appellate Court
☐ 4 Reinstated or Reopened
☐ 5 Transferred from another district (specify)
☐ 6 Multidistrict Litigation
☐ 7 Appeal to District Judge from Magistrate Judgment

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing (Do not cite jurisdictional statutes unless diversity):
35 USC §271

Brief description of cause:

Infringement of Plaintiff's Patent for an umpire's chest protector

VII. REQUESTED IN COMPLAINT:

☐ CHECK IF THIS IS A CLASS ACTION DEMAND \$
 UNDER F.R.C.P. 23 500,000.00

CHECK YES only if demanded in complaint:
 JURY DEMAND: ☒ Yes ☐ No

VIII. RELATED CASE(S) IF ANY

(See instructions):

JUDGE

DOCKET NUMBER

DATE

10/31/06

SIGNATURE OF ATTORNEY OF RECORD

Jennifer Courtney

FOR OFFICE USE ONLY

RECEIPT # _____ AMOUNT _____ APPLYING IFP _____ JUDGE _____ MAG. JUDGE _____

**UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW JERSEY
NEWARK VICINAGE**

Joseph H. West	:	
Plaintiff	:	
	:	
vs.	:	Civil Action No.
	:	
All American Sports Shop	:	
Venus Knitting Mills, Inc. and	:	
Pro-Ref Sportswear	:	
Defendants	:	

**COMPLAINT FOR PATENT INFRINGEMENT AND RELATED CLAIMS WITH
DEMAND FOR JURY TRIAL**

1. Plaintiff, Joseph H. West, is an individual residing at 4904 Travellers Palm, Tamarac, FL. 32319.

2. Defendant, All American Sports Shop is a sporting goods manufacturer/distributor/ vendor with a principal place of business at 325 Hudson Street, Hackensack, New Jersey 07601.

3. Defendant, Venus Knitting Mills, Inc. is a sporting goods manufacturer/distributor/vendor, with a principal place of business at 140 Spring Street, Murray Hill, NJ 07974.

4. Defendant, Pro-Ref Sportswear is a manufacturer/distributor/vendor with a principal place of business in Tampa, Florida and who, upon information and belief sells sporting goods throughout the United States, including the District of New Jersey.

5. This action arises under the Act of June 25, 1948, 62 Stat.869, U.S.C. Title 28, § 1338(a) and (b), related to patents and unfair competition, as hereinafter more fully appears, and further under 28 U.S.C. § 1331 as a civil action arising under the laws of the United States and further pursuant to the doctrines of pendant and ancillary jurisdiction.

6. Plaintiff is a Major League Baseball umpire with 28 years of service time in Major League Baseball. He has worked in two All Star Games, three Division Series playoffs, seven League Championship Series playoffs and three World Series.

7. Plaintiff introduced the first successful protective garment for baseball umpires having an inner cushioned layer and outer layer of interconnected plates through his own inventions which met with widespread approval and adoption, and Plaintiff became the recognized leader in his field, which position has remained unchallenged and has continued through the present date.

8. On July 2, 1996, United States Patent No. 5,530,966 for Protective Garment for Baseball Umpires Having an Inner Cushioned Layer and an Outer Layer of Interconnected Plates (hereinafter, "patented umpire's chest protector") was duly and regularly issued to Plaintiff. A true and correct copy of the aforesaid patent is attached hereto as Exhibit "A".

9. Plaintiff has entered into an exclusive licensing agreement to market and sell his patented umpire's chest protector with Wilson Sporting Goods ("Wilson"). Wilson markets the patented umpire's chest protector as the "West Vest" in four variations: West Vest Platinum Chest Protector, product #A3215; West Vest Gold Chest Protector, product #A3210; West Vest Original, product #A3209; and, West Vest fitted Chest Protector, product #A3217 (collectively, the "West Vests").

10. Plaintiff has given notice of his patent by duly and properly marking the patent numbers on the West Vests sold by Wilson pursuant to the licensing agreement, in

accordance with Title 35, United States Code, Section 287. Moreover, Plaintiff states on his website, www.umpirejoewest.com, that the four variations of the West Vests are protected by United States Patent #5,530,966.

11. Plaintiff is now and has been at all times since the respective date of issuance of the aforesaid patent, the owner of said patent and of all rights thereto and thereunder.

12. Plaintiff is the owner of certain valuable trade secrets relating to the manufacture, testing and calibration of his patented umpire's chest protector; such trade secrets have enabled Plaintiff to manufacture and make available umpire's chest protectors which are unsurpassed in protection and performance; Plaintiff's trade secrets are very important to the successful building of his patented umpire's chest protector; Plaintiff has guarded such trade secrets carefully; and Plaintiff discloses such trade secrets to certain employees of Wilson, only upon receiving promises of secrecy from such employees.

13. Plaintiff did not disclose such trade secrets to Defendants, All American Sports Shop, Venus Knitting Mills, Inc and/or Pro Ref Sportswear (collectively, the "Defendants").

14. Plaintiff has become aware that Defendant, Venus Knitting Mills, Inc. makes and/or markets an umpire's chest protector, model #'s UPRO13, UPRO15 and UPRO17 (the "VKM umpire's chest protector") which he believes violates his patent.

15. On or about August 22, 2006, Plaintiff sent a letter to Defendant, Venus Knitting Mills, Inc. demanding, *inter alia*, that Defendant cease any further manufacture and/or sale of the VKM umpire's chest protector. A true and correct copy of the August 22, 2006 correspondence is attached hereto as Exhibit "B".

16. Plaintiff has become aware the Defendants, All American Sports Shop and Pro-Ref Sportswear make and/or market an umpire's chest protector, the All American Pro Chest Protector, which protector is identified by Defendant All American Sports Shop as model #'s AA-37, AA-38 and AA-39 and which Plaintiff believes violates his patent.

17. On or about September 26, 2006, Plaintiff sent a letter to Defendant All American Sports Shop demanding, *inter alia*, that Defendant cease any further manufacture and/or sale of the All American Pro Chest Protector. A true and correct copy of the September 26, 2006, letters are attached hereto as Exhibit "C".

18. On or about October 4, 2006, Plaintiff faxed a letter to Defendant Pro-Ref Sportswear demanding, *inter alia*, that Defendant cease any further manufacture and/or sale of the All American Pro Chest Protector. A true and correct copy of the October 4, 2006, letter is attached hereto as Exhibit "D".

19. Upon inspection of the VKM umpire's chest protector and the All American Pro Chest Protector, Plaintiff believes and therefore avers that they are identical to each other and manufactured in the same facility in China.

20. In the course of the conduct above specified, the Defendants, Venus Knitting Mills, Inc., All American Sports Shop and Pro-Ref Sportswear have in the past and are presently inflicting grievous and irreparable harm, damage, and injury upon Plaintiff and have specifically given rise to the following causes of action:

First Count - Patent Infringement

21. Plaintiff hereby incorporates paragraphs 1 through 20 above as if set forth at length herein.

22. Defendants have infringed and are now infringing the claims of United States Patent No. 5,530,966 by making, using and/or selling within the District of New Jersey, Newark Vicinage and elsewhere within the United States, the VKM umpire's chest protector, and the All American Pro Chest Protector, embodying the inventions claimed therein by Plaintiff, and will continue to do so, causing Plaintiff added injury and loss of profits unless enjoined by this Court.

23. Defendant, Venus Knitting Mills' infringement has been willful and deliberate in that, *inter alia*, Venus Knitting Mills received notice of possible infringement prior to the August 22, 2006 cease and desist correspondence and failed to make any reasonable effort to research/explore possible patent infringement or willfully ignored the results of any research it may have made into possible patent infringement.

24. Defendant, All American Sports Shop's infringement has been willful and deliberate in that, *inter alia*, All American Sports Shop advertises and sells the All American Pro Chest Protector along with the West Vests, which are marked with the patent number, and has failed to make any reasonable effort to research/explore the possible patent infringement or has willfully ignored the results of any research it may have made into possible patent infringement.

25. Defendant, Pro-Ref Sportswear's infringement has been willful and deliberate in that, *inter alia*, Pro-Ref Sportswear has utilized a testimonial from an un-named minor league umpire on its website, at www.pro-ref.com, that specifically references the Wilson West Vest, the West Vest Gold and the West Vest Platinum and has failed to make any reasonable effort to research/explore the possible patent infringement or has willfully ignored the results of any research it may have made into possible patent infringement.

Second Count - Unfair Competition

26. Plaintiff hereby incorporates paragraphs 1 through 25 above as if set forth at length herein.

27. Defendants have unfairly competed with Plaintiff by copying well-known patented features of Plaintiff's patented umpire's chest protector, the West Vests, and by otherwise causing customer confusion; by using and disclosing trade secrets of Plaintiff, all of which practices already have resulted in serious injury to Plaintiff's business position, reputation, and good will, and will result in irreparable injury to Plaintiff unless enjoined by this Court.

WHEREFORE, Plaintiff, Joseph H. West prays that:

(a) A temporary restraining order be granted to restrain Defendants, their agents, servants, employees, attorneys, and all other persons in active concert or participation with Defendants from destroying, defacing, or damaging any papers, documents, records, or drawings, or from removing any papers, documents, records, drawings, from the jurisdiction of this Court, unless permission is first obtained from this Court; such order further to restrain the aforementioned parties from disclosing or divulging to others any information contained in any and all papers, records, documents, or drawings, including copies, substantial copies, abstracts, or summaries thereof, which are now or ever were the property of Plaintiff in this action, or which partially or wholly reveal trade secrets of Plaintiff herein, or any other information which partially or wholly reveals a trade secret learned by Defendants concerning Plaintiff's West Vests herein; such order to remain in

effect until the hearing and determination of the application herein made for a preliminary injunction;

(b) After hearing, a preliminary injunction be granted to enjoin Defendants, their agents, servants, employees, attorneys, and all other persons in active concert or participation with them from destroying, defacing, or damaging any papers, documents, records, or drawings, or from removing any papers, documents, records, or drawings from the jurisdiction of this Court, unless permission is first obtained from this Court; said preliminary injunction further to enjoin the aforementioned parties from disclosing or divulging to others any information contained in any and all papers, documents, or drawings, including copies, substantial copies, abstracts, or summaries thereof, which are now or ever were the property of Plaintiff in this action, or which partially or wholly reveal trade secrets of Plaintiff herein, or any other information which partially or wholly reveals a trade secret learned by Defendants from Plaintiff; such preliminary injunction to remain in effect until Plaintiff's attorneys have had reasonable opportunity to take the depositions of the officers and employees of Defendants, and to have its discovery;

(c) Defendants be ordered to appear and show cause why the application for the aforesaid preliminary injunction should not be granted;

(d) An injunction be granted perpetually restraining Defendants and all those in privity with Defendants from further infringement of Plaintiff's patent, further use or disclosure of any trade secrets or other confidential information belonging to Plaintiff, and any further acts of unfair competition against Plaintiff;

(e) Defendants be required to account to Plaintiff for the actual damages suffered by Plaintiff as the result of the infringement of Plaintiff's patent by Defendants and that

such damages be trebled because of the willful and deliberate character of the infringement;

(f) Plaintiff be awarded exemplary damages from Defendants;

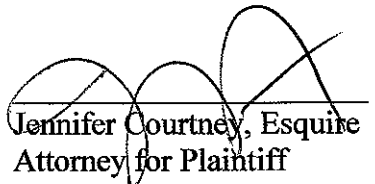
(g) Defendants be ordered to account to Plaintiff for Defendants' profits and all other unjust enrichment resulting from the wrongful violation of Plaintiff's patent and the taking and use of Plaintiff's trade secrets, skills, and know-how;

(h) Plaintiff be allowed his costs; and

(i) Such other and further relief be granted to which Plaintiff may be justly entitled.

Further, Plaintiff demands a jury trial in this matter.

LAW OFFICES OF
JENNIFER COURTNEY, P.C.



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(215) 493-3360
(215) 493-8119 (Facsimile)



US005530966A

United States Patent [19]

West

[11] Patent Number: 5,530,966
[45] Date of Patent: Jul. 2, 1996

[54] PROTECTIVE GARMENT FOR BASEBALL UMPIRES HAVING AN INNER CUSHIONED LAYER AND AN OUTER LAYER OF INTERCONNECTED PLATES

5,060,313 10/1991 Neuhalfen .
5,107,542 4/1992 Zide et al. .
5,187,812 2/1993 Neuhalfen .

OTHER PUBLICATIONS

[76] Inventor: Joseph H. West, 437 Lakeview Dr., Fort Lauderdale, Fla. 33326

Letter dated Apr. 13, 1993 from Ben D. Tobor, Esq. of McGlinchey Stafford Lang to John S. Child, Jr., Esq.
Affidavit of Mr. Roger Douglas.
Affidavit of Mr. Brian Donzis.

[21] Appl. No.: 416,688

[22] Filed: Apr. 10, 1995

Primary Examiner—John J. Calvert

Assistant Examiner—Gloria Hale

Attorney, Agent, or Firm—Dann, Dorfman, Herrell and Skillman

Related U.S. Application Data

[63] Continuation of Ser. No. 994,497, Dec. 21, 1992, abandoned.

[51] Int. Cl.⁶ A41D 13/00

[52] U.S. Cl. 2/2; 2/25

[58] Field of Search 2/2, 2.5, 44, 45, 2/268, 267

[57] ABSTRACT

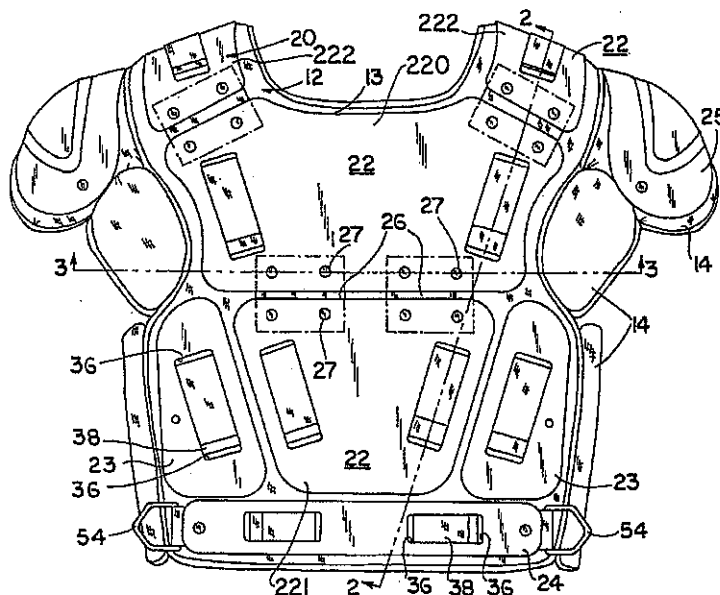
A protective garment for the torso of a body and in particular a chest protector for baseball umpires which has an inner flexible layer and outer shell layer. The inner layer is in the form of a flexible pad adapted to conform to the contour of the torso. The inner layer has an inner and outer surface and an intermediate thickness of cushioning material adapted to distribute impacts against a given area of the outer layer over an area of the inner layer which is at least as great, as said given area. The outer shell layer is adapted to overlies said inner layer and comprises a plurality of interconnected plate elements. Each plate element is positioned and arranged to overlies a selected area of the torso. The garment also has both flexible straps and a cover element for interconnecting the plate elements to form a torso-fitting outer shell and releasable fasteners to interconnect the inner layer and outer shell layer. The releasable fasteners include anchor straps which pass through a pair of spaced-parallel slots in the plate elements and are releasably connected together between the pair of slots.

[56] References Cited

U.S. PATENT DOCUMENTS

3,452,362 7/1969 Korolick et al. .
4,453,271 6/1984 Donzis .
4,486,901 12/1984 Donzis .
4,513,451 4/1985 Brown .
4,554,681 11/1985 Kirkland .
4,590,622 5/1986 Wolfe et al. .
4,602,385 7/1986 Warren .
4,698,846 10/1987 Wang .
4,847,913 7/1989 Chen .
4,872,215 10/1989 Sliger .
4,872,216 10/1989 Wingo, Jr. .
4,996,720 3/1991 Fair .
5,020,156 6/1991 Neuhalfen .
5,029,341 7/1991 Wingo, Jr. .
5,054,121 10/1991 Mitchell .

24 Claims, 7 Drawing Sheets



EXHIBIT

A.

U.S. Patent

Jul. 2, 1996

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5,530,966

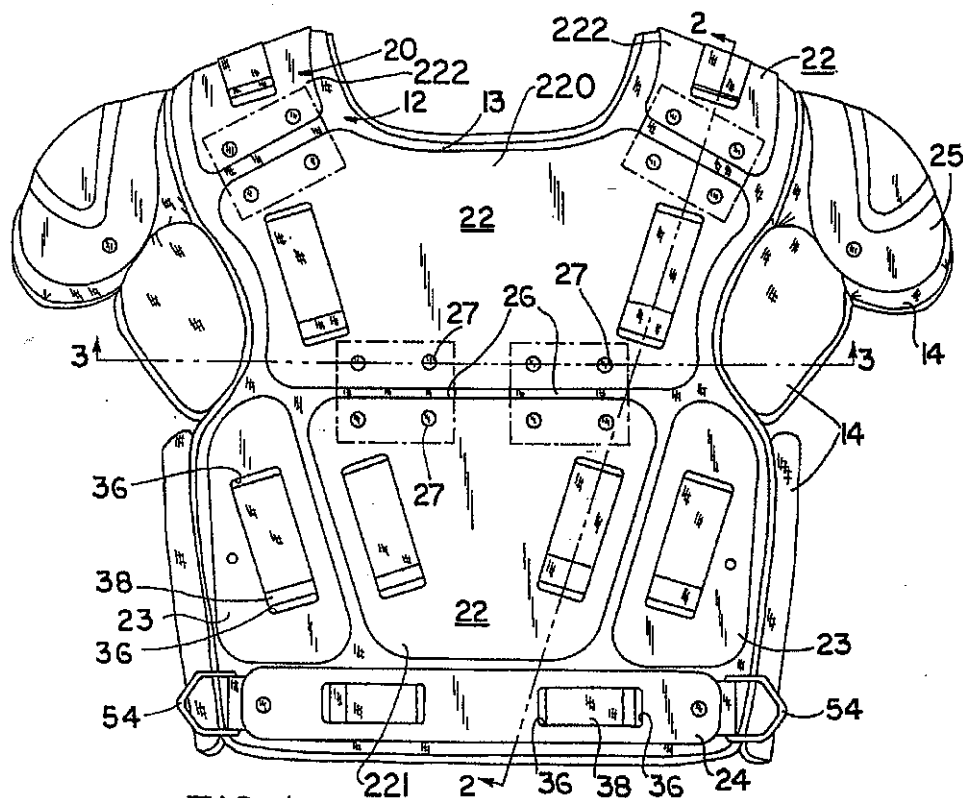


FIG. 1

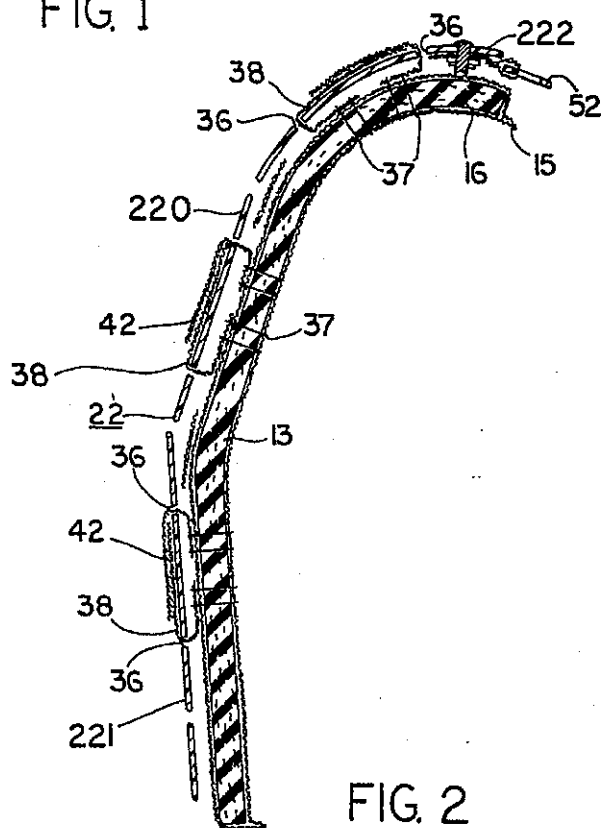


FIG. 2

U.S. Patent

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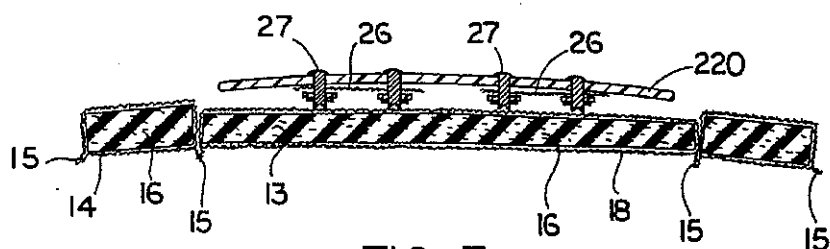


FIG. 3

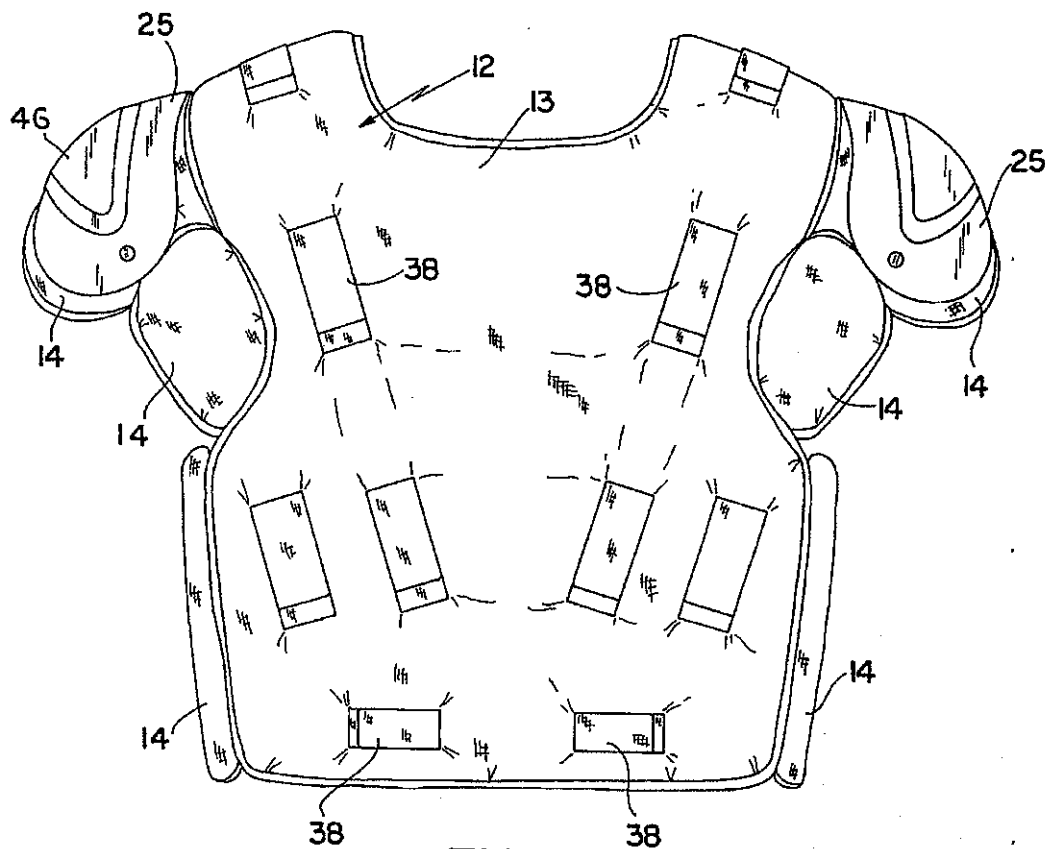


FIG. 4

U.S. Patent

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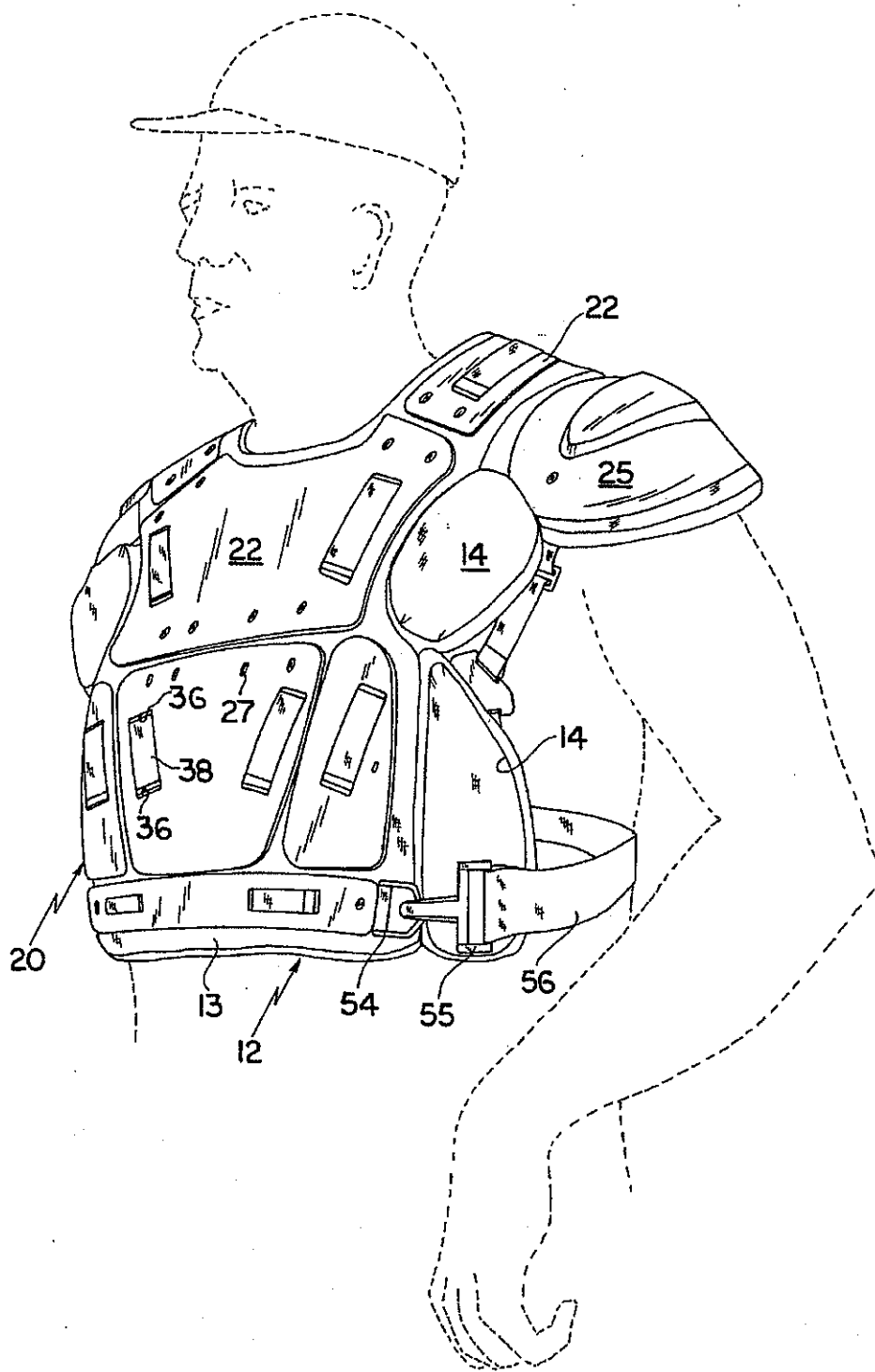


FIG. 5

U.S. Patent

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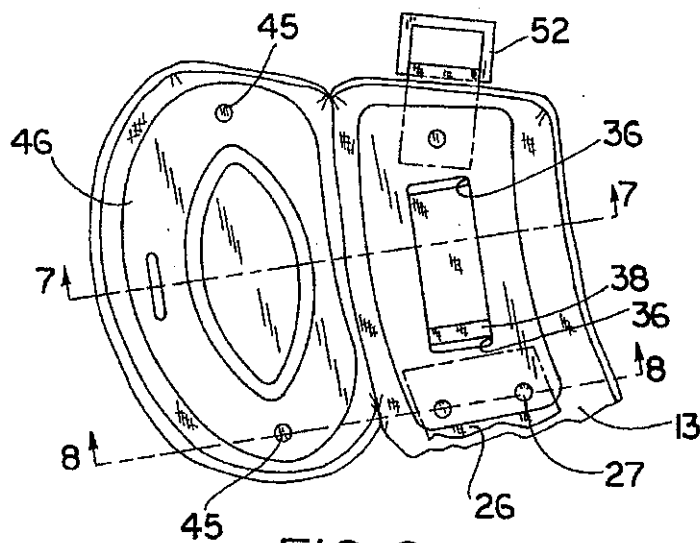


FIG. 6

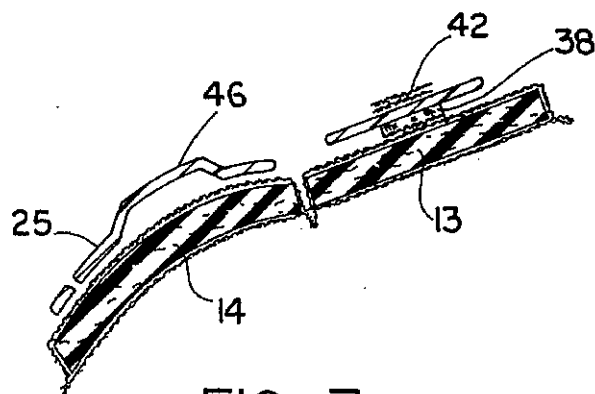


FIG. 7

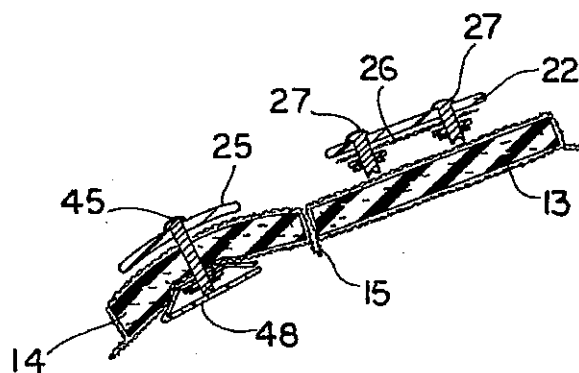


FIG. 8

U.S. Patent

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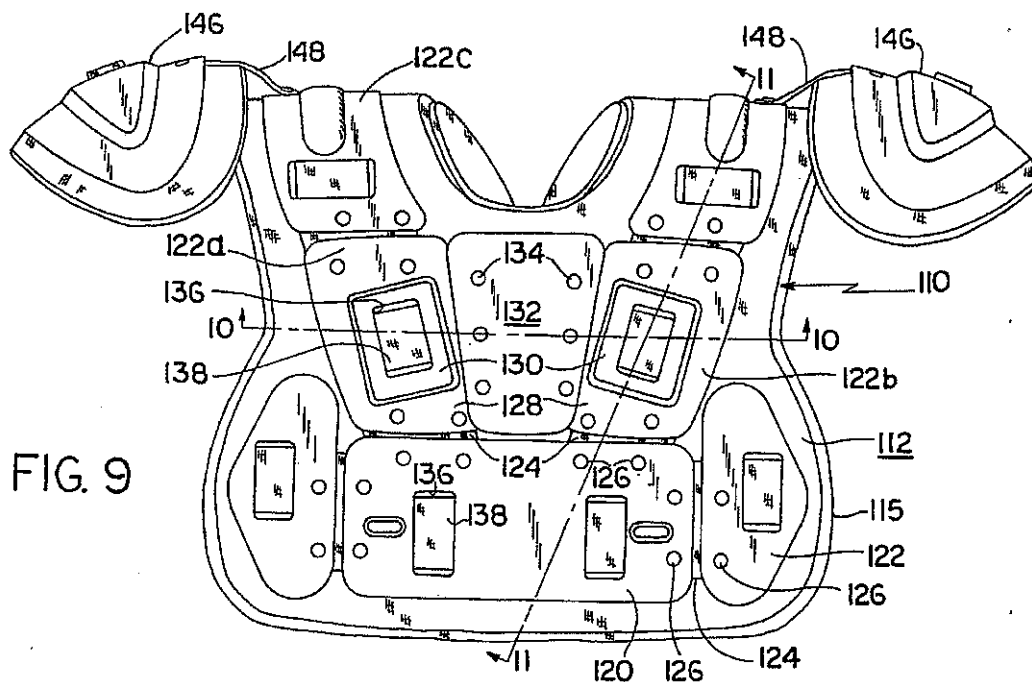


FIG. 9

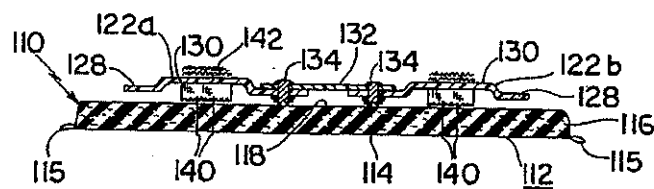


FIG. 10

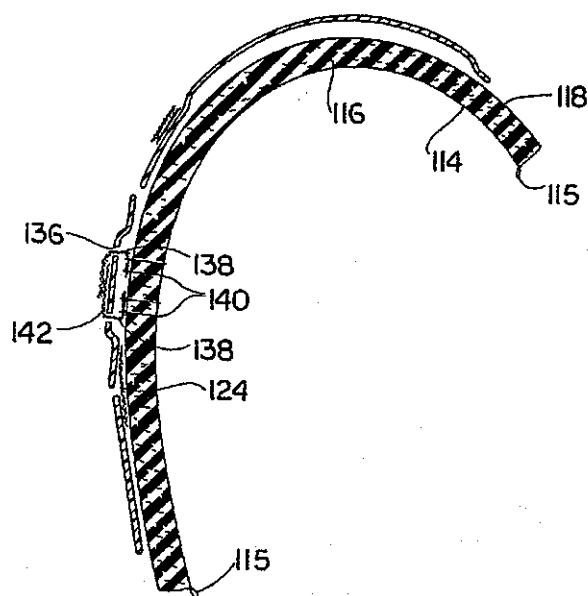


FIG. 11

U.S. Patent

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5,530,966

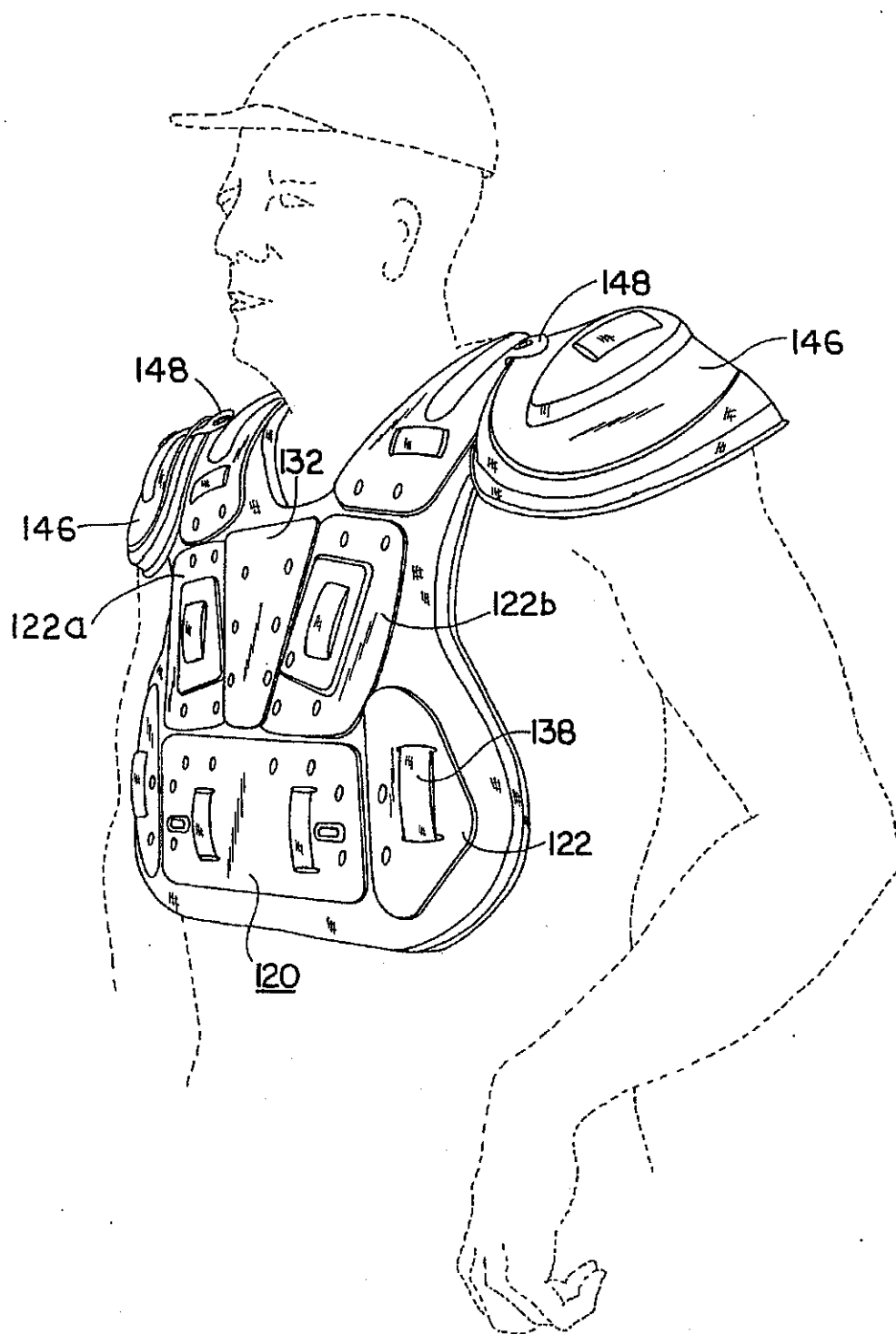


FIG. 12

U.S. Patent

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5,530,966

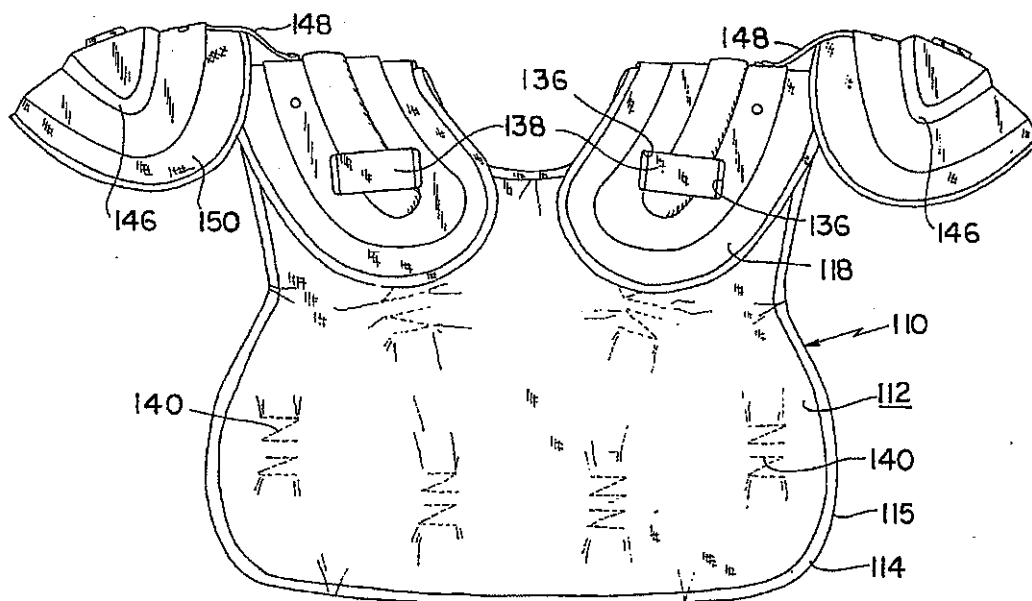


FIG. 13

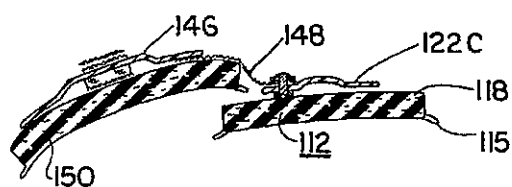


FIG. 15

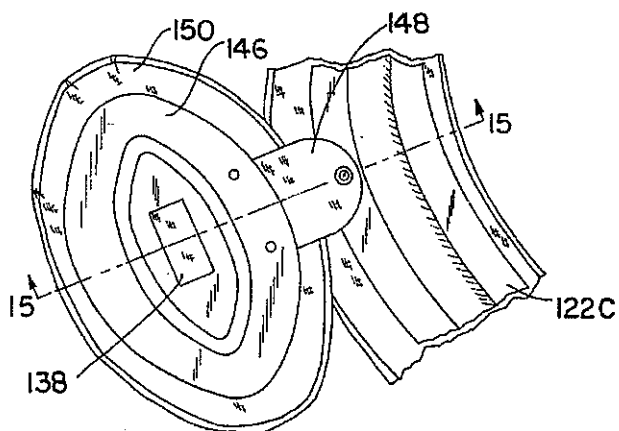


FIG. 14

5,530,966

1

**PROTECTIVE GARMENT FOR BASEBALL
UMPIRES HAVING AN INNER CUSHIONED
LAYER AND AN OUTER LAYER OF
INTERCONNECTED PLATES**

RELATED APPLICATION

This application is a continuation of U.S. application No. 07/994,497, filed Dec. 21, 1992, abandoned.

FIELD OF THE INVENTION

The field of the invention is directed to a protective garment for the torso of the body for use in athletic activities. The protective garment is particularly designed for use as a chest protector for baseball umpires.

BACKGROUND OF THE INVENTION

Protective garments for athletes are specifically designed to accommodate the hazards of a particular sport or activity. For example, football pads are designed to protect against body impacts while permitting the player to perform the maneuvers required on the football field. Lacrosse pads are designed to protect against limited body impact but also against impact from lacrosse sticks and balls, while allowing the athlete to perform the maneuvers required by the game. In many cases, the padding may be specifically designed for a particular playing position. For example, the pads for goaltenders are normally quite different than those for the players at offensive and defensive positions. In baseball, the catcher has a chest protector and shin pads.

The invention is directed to a protective garment for use in athletic activities and particularly to a chest protector of the type used by umpires in baseball games. For umpires, the invention is designed to protect the wearer from being injured by the force impact from a baseball as might normally occur when the baseball is "foul-tipped" by a batter. Such "foul-tips" often strike an umpire and conventional chest protectors have been used in the past to reduce such injury.

Conventional baseball catchers' chest protectors are frequently manufactured by placing small pieces of foam between front and back pieces of fabric, sometimes gluing the foam in place. The pieces of fabric are generally stitched to each other along the peripheral border, in voids between the pieces of foam, and sometimes through the foam. Some chest protectors utilize cotton which is simply pushed into hollow ribs or chambers of fabric and appropriately stitched. The process of manufacturing such conventional chest protectors is labor intensive and time consuming and the protection offered is minimal at best.

Such traditional or conventional chest protectors are designed to absorb the force of impact so as to allow the ball to drop to the ground and to prevent the ball from ricocheting, and are not designed to diffuse the force of impact created by the forceful contact of a high-speed baseball. This deficiency is apparent particularly with respect to the conventional chest protectors referred to above which include a plurality of spaced or separated hollow ribs. The spacing between the ribs offers no protection to the wearer of such conventional chest protectors.

Another common form of chest protector used by umpires is of an inflatable type in which pressurized air is used to inflate a protective jacket. Use of pressurized gas requires the use of a compressor or mechanical pump to properly inflate the jacket. This additional equipment adds signifi-

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cantly to the cost and inconvenience of using such a jacket. Furthermore, because a significant quantity of pressurized air is needed to inflate the protective jacket to a pressure which provides the desired protection against impact, the jacket tends to be extremely bulky.

Conventional chest protectors also tend to be formed as a single unit, though made of a plurality of pieces, and are difficult and inconvenient to transport, pack and wear.

Protective garments have also been developed for non-athletic activities to protect the wearer from various injurious and even life-threatening hazards. For example, U.S. Pat. No. 3,452,362 to Korolick et al. relates to a flexible body garment consisting of front and back portions each of which contains a pocket to receive an armor plate. Similarly, U.S. Pat. No. 4,602,385 to Warren relates to a vest or garment constructed of a laminated material which has thermal protective, shock absorptive and puncture resistant properties. The patented garment includes a body portion that is quickly connectable about the torso of the user with front and back panels that are hingedly connected together. The garment also includes a hood or head portion that is hingedly connected to the back panel of the body portion.

Protective garments for athletic activities have also been described in the literature. For example, U.S. Pat. No. 4,872,115 to Sliger relates to a chest protector for use in sporting events such as karate or other martial arts in which maneuverability is required. The Sliger protector is sized to cover the chest and abdomen of its wearer. The protector has an outer layer formed of a light-weight leather or leather-like material, an inner layer formed of batting, and closed-cell foam pads provided intermediate the inner and outer layers.

Protective garments for contact sports such as football are referenced in U.S. Pat. No. 4,486,901 to Donzis, U.S. Pat. No. 4,872,216 to Wingo, Jr., U.S. Pat. No. 4,996,720 to Fair and U.S. Pat. No. 5,107,542 to Zide et al. The Donzis patent relates to pads which cushion the impact by regulating the escape of air from the foam layer of the shielded shock-absorbing structure. The shield is a single plate removably mounted on the fabric-covered foam layer of the structure. The Wingo patent relates to a cantilever strap for a shoulder pad for a football player. In the Wingo patent, the central portion of each cantilever strap which overlies the acromioclavicular area of the football player's shoulder is substantially greater than two inches in width to disperse force from an impact on that area. The Fair patent relates to a protective vest having an upstanding collar or neck guard intended for contacting the bottom edge of a player's helmet. The vest has a flexible body with shoulder portions between chest and back panels. The vest may consist of a one-piece foam material or the foam material coated with a moisture barrier. The Zide patent relates to a front-lock stabilizer for protective shoulder pads for football. The pads comprise breastplates and backplates. The breastplates are closed by laced interdigitated plates fixedly secured to the vertical edges of the breastplates. The backplates are closed by a plurality of rigid plates extending between the backplates and fixedly secured thereto.

Protective garments for use in baseball are referred to in U.S. Pat. No. 4,847,913 to Chen and U.S. Pat. No. 5,020,156 to Neuhaufen. The Chen patent relates to a chest protector formed by a pair of chest protector bodies, each of which is formed to include a one-piece, homogeneous, in situ molded foamed polymeric/copolymeric material. A zipper is disposed along a vertical line of the protector for securing the protector bodies to each other. Straps are also provided for securing the chest protector bodies to each other along the

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back of a user. The Neuhalfen patent relates to a chest protector for a baseball catcher. The protector has a hinged shoulder pad covering one shoulder and the upper portion of one arm of the catcher. This protector is designed in part to protect the shoulder and upper part of the throwing arm of the catcher without interfering with the catcher's throwing motion. The Neuhalfen protector also comprises a one-piece substantially flat pad formed by an outer casing and a shock-absorbent cushion. This pad is adapted to cover the chest, stomach and shoulders of the catcher.

SUMMARY OF THE INVENTION

It is an object of the invention to provide a protective garment that is not bulky and maintains the maneuverability of the wearer.

It is another object of the invention to provide an improved protective garment that diffuses the force of impact on the wearer created by the forceful contact of a high-speed baseball.

It is another object of the invention to provide a protective garment that is separable into two or more parts that are more convenient to transport and pack. The inner part or component may be replaced with a fresh component if it becomes damaged or soiled in use, or if its protection characteristics deteriorate from age or exposure to severe ambient conditions.

Preferably, the invention provides a protective garment that does not have to be inflated and does not require the use of pressurized gas.

The protective garment of the invention has two layers which comprise a flexible inner layer and a hard outer layer which is adapted to be removed from the inner layer to facilitate replacement or repair of either or both layers.

Preferably, the inner layer is in the form of a flexible pad adapted to conform to the contour of the torso. The inner layer has an inner surface adapted to confront the torso and an outer layer facing outwardly from the torso. The inner layer includes an intermediate thickness of a cushioning material adapted to distribute impacts against a given area of the outer layer over an area of the inner layer which is at least as great as said given area. Preferably, the hard outer layer is in the form of a shell adapted to overlie said inner layer and comprises a plurality of interconnected plate elements. Each of these plate elements is preferably positioned and arranged to overlie a selected area of the torso and includes means for interconnecting said plate elements to form a torso-fitting shell overlying said inner layer.

Preferably, the means for interconnecting the plate elements comprise at least one flexible strap spanning between adjacent plate elements. This flexible strap may have one end connected to one plate element and the other end connected to an adjacent element. The strap is preferably of a length to provide a clearance space between the adjacent elements to afford hinge-like displacement of said adjacent plate elements.

In one of the preferred embodiments of the invention, the interconnecting means also includes a second plate connector overlying other plate elements positioned in edge-confronting adjacent relation. This second plate connector comprises a cover element overlying the confronting marginal edges of said two other plate elements. Preferably, this cover element is interconnected with each of said two other plate elements along said confronting marginal edges of said two plate elements. It is desirable that the cover element is made of a stiff shock-resistant lightweight material. In addition, in

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the area of this cover element, the shell provides a substantially rigid interconnection between said two other plate elements with an area of multiple thicknesses along each of the confronting marginal edges of said two other elements.

In each of the preferred forms, at least two of said plate elements include at least one pair of eyelets comprising spaced-parallel slots penetrating through said associated plate. The outer layer or shell is thereby connected to said inner layer by anchor straps. The straps may be mounted on the inner layer and extend through said spaced-parallel slots. Preferably, the straps have releasable means to releasably mount said shell on said inner layer.

These and other objects of the invention will be set forth in more detail in the following description when read in conjunction with the drawings, in which:

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a front elevation of a first protective garment embodying the invention;

FIG. 2 is a sectional view taken on the line 2—2 of FIG. 1;

FIG. 3 is a sectional view taken on the line 3—3 of FIG. 1;

FIG. 4 is a front elevation of the first protective garment with the outer layer removed;

FIG. 5 is a perspective view of the garment illustrated in FIG. 1, as worn by an umpire;

FIG. 6 is a fragmentary top view of the protective garment of FIG. 1, illustrating its shoulder protection;

FIGS. 7 and 8 are sectional views taken on the lines 7—7 and 8—8 of FIG. 6;

FIG. 9 is a front elevation of a second embodiment of a protective garment embodying the invention;

FIG. 10 is a sectional view taken on the line 10—10 of FIG. 1;

FIG. 11 is a sectional view taken on the line 11—11 of FIG. 1;

FIG. 12 is a perspective view of a protective garment of FIG. 9, as worn by an umpire;

FIG. 13 is a rear elevation of a protective garment of FIG. 9;

FIG. 14 is a fragmentary top view of a protective garment of FIG. 9, showing its shoulder protection; and

FIG. 15 is a sectional view taken on the line 15—15 of FIG. 14.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIGS. 1—8 illustrate a first embodiment of the invention which is particularly suited for use by baseball umpires. The protective garment of FIGS. 1—8 covers the entire frontal area of the upper torso to provide protection against impacts from baseballs which may be "foul tipped" by the batter.

The protective garment has an inner layer 12 comprising a frontal pad 13 extending from the shoulder to below the waist and supplemental wing pads 14 adapted to overlie the shoulders, the armpits, and the sides of the torso, respectively. Each of the pads 13 and 14 comprises a thickness of flexible cushioning material 16 enclosed in a fabric sheath 18. In the present instance, the sheath 18 encloses the cushioning material 16 and is provided with a seam around its entire perimeter forming a peripheral flange 15. In the

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present instance, the wing pads 14 are connected to the frontal pad 13 by interconnecting the respective flanges of the frontal pad and the wing pads along the line where they are interconnected so as to provide an articulated cover which may be folded generally along the seam lines between the respective pad elements of the inner layer 12. As shown in FIG. 3, the cushioning material 16 in the frontal pad 13 is of a different character than the cushioning material 16 in the wing pads 14, as will be described more fully hereinafter. In the present instance, the seams 15 are positioned along the inner surface of the respective pads so that the wing pads may be readily folded inwardly and will naturally follow the contour of the upper torso of the user.

Overlying the inner layer 12, an outer shell 20 is releasably secured to the inner layer 12 to afford a distribution of the forces of impact over a wide area of the inner layer. The outer shell 20 comprises a plurality of interconnected plate elements 22 and supplemental plate elements 23, 24 and 25. The plate element is identified by the generalized character 22 and comprises an intermediate breastplate element 220, a solar element 221 and shoulder elements 222. The supplemental plate elements 23 are releasably secured to the frontal pad 13 in the side area. The supplemental plate element 24 is connected to the frontal pad 13 along the lower edge thereof and the supplemental plates 25 are mounted on the wing pads 14 which overlie the shoulder area. In the present instance, the plates 23 and 24 are releasably mounted on the frontal pad 13 and the supplemental plate 25 is permanently mounted on the shoulder wing pad 14.

The interconnected plates 22 are hingedly connected by flexible straps 26 which are riveted to the plates 220, 221 and 222 as indicated at 27, so as to position the adjoining plates close to each other but with a clearance space therebetween. As shown, the clearance space is less than the diameter of a baseball. The flexible straps 26 are of a fabric construction which affords a freedom for hinged movement of the plates about a hinge axis extending within the clearance space generally parallel to the confronting edges of the adjoining plates. The hinged movement of the plates relative to one another is limited when the plates are secured to the underlayer 12, but the plates are free for hinged movement when released from the underlayer 12. The fabric construction of the straps 26 resists twisting movement.

The shell layer 20 is adapted to be releasably mounted on the underlayer 12 so that the layers may be disassembled for packing and storing or for cleaning or repair. When disassembled, the inner layer may be cleaned or, if necessary, dried out, for example when the layer has become wet from perspiration or from adverse weather conditions. To provide the desirable releasable interconnection, anchor straps 38 are secured to the inner layer 12 and project outwardly through a pair of eyelets in the form of spaced parallel slots 36 within the plates 22, 23 and 24. The anchor straps 38 are connected to the frontal pad 13 of the inner layer 12 by stitching 37 which passes through the inner pad including both the sheath 18 and the padding 16. The stitching 37 not only secures the anchor strap 38 in place on the pad 13, but also serves to tack the padding 16 in place within the sheath 18. The straps 38 are thereby anchored to the pad 13 at one end and extend through the spaced parallel slots 36 and may be overlapped at their other end and interconnected by suitable fastening means 42. In the present instance, the fastening means 42 comprises complementary hook and loop strips of the "VELCRO" type which provide a secure interconnection between the free ends of the anchor straps 38 and yet are readily releasable to free to outer shell 20 for removal from the inner layer 12. For ease of manufacture, the anchor straps

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may be formed in pairs, one element of the pair being provided with flexible hooks and the other element of the pair being provided with loops. Alternate fastening means may be employed such as pressure-sensitive adhesive, hooks and eyes, snaps, etc. However, anchor strips of complementary hook and loop fabrics are used in the preferred embodiments of the invention.

As shown in FIGS. 1 and 3, the interconnected plates comprise an intermediate breastplate 220 with shoulder plates 222 hinged on opposite sides of the upper portion thereof and a solar plate 221 hinged along the bottom edge thereof. The intermediate breastplate 220 extends across the full width of the underlayer 12 in the area between the armpits. As noted above, wing pads 14 are connected to the frontal pad 13 and extend beyond the sides of the intermediate breastplate 220.

Each of the plates 22 comprises a sheet of stiff, shock-resistant, lightweight material which may be a synthetic plastic or other suitable material. The intermediate plate 220 is designed to accept the impact of foul tips and to diffuse the force of the impact over the wide area of the plate 22. This diffuse force is cushioned by the entire underlying area of the frontal pad 13. As shown in FIG. 3, the cushioning material 16 in the frontal pad 13 underlying the plate 22 is a high density foam material which is designed to provide substantial protection against impact and to absorb the force which has been diffused by the plate. The wing pads, on the other hand, are of thicker material which is less dense and provides a greater cushioning affect by reason of the fact that the area protected by the wing pads is not as susceptible to direct impact from foul tips, allowing the less dense foam material 16 in the wing pads to protect the armpit area of the user.

As shown in FIGS. 6-8, the wing pad for the shoulders is of the same material as the frontal pad 13 because of the presence of the shoulder plate 25 which functions to diffuse the impact of foul tips over the wide area of the high-density cushioning material 16 in the shoulder wing pad 14.

The shoulder plate 25 differs from the other plates 22, 23 and 24 not only by reason of the fact that the plate is permanently secured to the shoulder wing pad 14 by rivets 45 (see FIGS. 6 and 8) but also in that the plate is reinforced centrally by an upstanding central portion 46 which serves to reinforce the plate against deflection, i.e. denting or bending. Since the rivets 45 penetrate the wing pad 14, as shown in FIG. 8, the underside of the rivet is protected by a suitable shielding cover 48 and the cushioning material within the wing pad 14 is compressed in the area of the rivet so that any impact against the plate 25 is borne by the cushioning material surrounding the rivet rather than by the rivet itself.

The protective garment is designed to be retained on the torso by straps connected to the shell 20. To this end, the shoulder plates 22 have eyelets 52 at the back thereof to receive shoulder straps of the harness and the lower supplemental plate 24 is likewise provided with strap loops 54 to accommodate belt hooks 55 of the supporting harness 56 shown in FIG. 5. Thus, the protective garment shown in FIGS. 1-8 inclusive may be readily donned and doffed by unhooking the harness 56 from the outer shell 20 and then removing the assembled shell and inner layer from the torso. With the assembly removed, the shell 20, including the supplemental plates 23 and 24, may be removed from the inner layer 12. The connections provided by the anchor straps 26 enables the removed shell to be folded up for storage or shipment, and the inner layer 12 may also be

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folded for shipping or storage or may be cleansed, dried out, or otherwise treated. The present invention permits the user of the garment to substitute fresh padding when the original padding deteriorates, either through use or age. Furthermore, the invention permits the inner layer 12 to be custom-designed for the individual users, while permitting the fabrication and use of a standardized outer shell for purposes of economy.

The invention is not limited to the particular configuration shown in FIGS. 1-8, but the invention may be used in other configurations. For example, a second protective garment constructed in accordance with this invention is generally designated by the reference number 110 in FIGS. 9-15.

As shown in FIGS. 9 through 15, the protective garment is designed to be worn over the torso of a user. The protective garment has an inner layer 112. The inner layer is in the form of an unitary, flexible pad covering the entire upper frontal area of the user and adapted to conform to the contour of the torso. The inner layer comprises an inner surface 114 adapted to confront the torso, an intermediate cushioning material 116 and an outer surface 118 facing outwardly from the torso. The inner and outer surfaces 114 and 116 comprise a sheath made of fabric and generally of the same fabric. A clothing fabric that is water-resistant such as rip-stop nylon is preferred. The cushioning material 116 is made of a relatively soft flexible material and has a thickness and resilience adapted to distribute impacts against the outer surface 118 over a larger area of the inner surface 114. The sponge-like cushioning material 116 is preferably foam rubber, convoluted foam, or a compressible closed-cell foam material which does not age harden when exposed to the moist heat generated by the body or the heat which is normally present in sports stadiums where the protective garment is likely to be worn. It should be understood that the selection of a cushioning material may be modified according to the ultimate end use for which the garment is designed. In the present instance, the foam rubber cushioning material has a thickness on the order of $\frac{3}{4}$ ". In the present instance, the cushioning layer 116 is enclosed in a fabric sheath formed of rip stop nylon fabric or the like which is resistant to tearing or damage. Preferably, the fabric forming the inner surface 114 of the layer 112 extends beyond the perimeter of the cushioning material 116 to provide a peripheral flange 115 extending about the entire perimeter of the layer 112.

An outer shell layer 120 is mounted over the outer surface 118 of the inner layer 112. The outer shell layer includes a number of interconnected plate elements 122. Each of the plate elements overlies a selected portion of the torso. In the present instance, selected plates are adapted to overlie the rib cage, the sternum, the clavicle, the scapula, and the shoulder joint. The plate elements are also adapted to fit smoothly over substantially the entire upper frontal area of the torso as shown in FIG. 12.

As shown in FIG. 9, each plate element is interconnected to an adjacent plate element by a flexible strap 124. This interconnection is carried out by means of rivets 126 which extend through the plate element and strap. The strap provides a clearance space between the adjacent plate elements to afford hinge-like displacement of the associated plate elements 122 about a hinge axis which extends generally parallel to the confronting edges of the two adjacent plates within the clearance space. As in the first embodiment, the clearance space is less than the diameter of a baseball and the straps 124 are of a width and stiffness so as to resist flexing of the straps except along the hinge axis.

The outer shell layer of this second embodiment also includes an intermediate component having a second plate

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connector positioned between two plate elements which overlie the sternum and which are designated 122a and 122b in FIGS. 1 and 2. The intermediate plate connector comprises a cover element 132 which overlies the confronting marginal edges of the intermediate plate elements 122a and 122b. The cover element is interconnected with each of the elements 122a and 122b by rivets 134 positioned along such confronting marginal edges.

Both the cover element 132 and intermediate plate elements 122a and 122b comprise a sheet of a stiff shock-resistant lightweight material which may be a synthetic plastic or other suitable material. In the area of the cover element 132, the shell of this embodiment of the invention provides a substantially rigid interconnection between the intermediate plate elements 122a and 122b, producing an area of multiple thickness along each of the confronting marginal edges of the plate elements. As shown in FIGS. 9 and 10, the marginal edges of the plate elements 122a and 122b are substantially flat and coplanar as shown at 128 and surround a central portion 130 which is elevated. The elevated portion has a height greater than the thickness of the cover element 132 so that, when assembled as shown, the overlapped elements do not project outwardly beyond the elevated central portions 130 of the elements 122a and 122b. The elevated central portions 130 provide additional stiffness to the plates 122a and 122b and serve to reinforce these plates against deflection.

The cover element 132 and the elements 122a and 122b are adapted to overlie the sternum or breastbone. The area of multiple thickness and elevated central portion constitute the area of the protective garment providing the greatest diffusion of the force of impact created by the forceful contact of a high speed baseball. The greater protection offered by this central portion of the protective garment of this embodiment of the invention is in recognition that the breastbone is the part of the torso most vulnerable to the force of the impact referenced above.

Preferably, the shell 120 is releasably mounted on the inner layer 112, so that it may be disassembled for packing and storing, or for cleaning or repair. The hinged interconnection of the plates 122 enable the shell 120 to be folded on itself to provide a more compact package. The flexible nature of the inner layer 12 permits the layer to be folded upon itself when it is disassembled from the shell. When disassembled, the inner layer may be cleaned or, if necessary, dried out, for example when the layer has become wet from perspiration or from adverse weather conditions. To provide the desired releasable connection, anchor straps 138 are secured to the inner layer 112 and project outwardly through a pair of eyelets in the form of spaced parallel slots 136 penetrating through the associated plate 122. As shown in FIGS. 10, 11 and 13, the anchor straps 138 are mounted on the inner layer, for example by stitching at one end which penetrates through the layer as indicated diagrammatically at 140, and project through the spaced parallel slots and have releasable fastening means at 142 in FIG. 11. Preferably, the fasteners 142 comprise hook and loop fastener strips, but other devices, such as releasable adhesive surfaces may be provided on the ends of the straps 138 to releasably mount said shell on said inner layer.

When it is desired to separate the shell 120 from the layer 112, the fasteners 142 may be released and the straps 138 may be withdrawn through the slots 136. When all of the anchor straps are released, the shell 120 may be simply lifted from the underlayer 112.

As shown in FIGS. 14 and 15, a shoulder protector 146 for each shoulder is connected to the chest portion of the outer

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shell by a flexible strap 148. The strap is of a length to provide clearance space between the pad and the portion of the shell to afford double-hinged movement of said additional plate element relative to said shell, i.e., about the rivet axis perpendicular to one of said plates as well as about a hinge axis which falls within the clearance space along the confronting edges of the plates 146 and 122c. Each shoulder pad comprises an inner layer and plate element similar in construction to the inner layer 112 and shell layer 120 of the chest portion. In this embodiment, the plate 146 is releasably connected to the underlying pad 150 by anchor straps 138 which pass through slots in the plate 146 and have releasable interconnecting means similar to the means described above at 142. The underlying pad 150 is separated from the inner layer 112 and remains assembled to the protective garment by reason of its releasable interconnection with the plate 146 and the double-hinged connection of the plate 146 to the plate 122c which, in turn, is releasably anchored to the underlayer 112 by the several anchor straps 138. Thus, the double-hinged connection between the plates 146 and 122c provides ample freedom for movement of the shoulder and the upper arm of the person wearing the garment.

While particular embodiments of the present invention have been herein illustrated and described, it is not intended to limit the invention to such disclosure and changes may be made thereon and thereto within the scope of the following claims.

I claim:

1. A protective garment for the torso of a body for use by baseball umpires comprising in combination

an inner layer in the form of a flexible pad adapted to conform to the contour of the entire frontal area of the upper torso and having an inner surface adapted to confront the torso, an outer surface facing outwardly from the torso, and a perimeter defining the outlines of said inner and outer surfaces, said layer including an intermediate thickness of cushioning material between said inner and outer surfaces,

an outer shell layer covering substantially the entire frontal area of the upper torso and adapted to overlie said inner layer within its perimeter and comprising a plurality of interconnected plate elements, each plate element being positioned and arranged to overlie a selected area of the torso, and means interconnecting said plate elements to form a torso-fitting shell overlying said inner layer,

said cushioning material adapted to distribute impacts against a given area of the outer layer over an area of the inner layer which is at least as great as said given area,

said interconnecting means comprising at least one flexible strap spanning between adjacent plate elements of said plurality, said strap having one end connected to one element and the other end connected to the adjacent element and being of a length to provide a clearance space between the adjacent elements to afford hinge-like displacement of said adjacent plate elements about a hinge axis within said clearance space, said clearance space being limited to less than the diameter of a baseball whereby said inner layer, in the entire frontal area of the upper torso is protected against direct impact by a baseball,

each of said plate elements being a stiff, shock-resistant, lightweight material, having releasable fastening means interconnecting said shell on said inner layer.

2. A protective garment according to claim 1 wherein said releasable interconnecting fastening means comprise a pair

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of anchor straps passing through said shell and hook and loop fasteners on the respective anchor straps of said pair.

3. A protective garment according to claim 1, said plurality of plate elements comprising two arcuately-formed shoulder plates adapted to overlie the collarbone, at least one breastplate adapted to overlie the breastbone or sternum, and a front plate adapted to overlie the solar plexis within the rib cage and below the sternum wherein said outer shell extends continuously across the full width of the frontal area of the upper torso from the solar plexis to the collarbone.

4. A protective garment according to claim 1 wherein said cushioning material comprises a compressible closed-cell foam material contained within a fabric sheath.

5. A protective garment according to claim 4 wherein said sheath has a peripheral flange projecting beyond the perimeter of said cushioning material about its entire periphery.

6. A protective garment according to claim 5 wherein said cushioning material comprises a unitary pad underlying all of said interconnected plate elements of said shell and extending continuously from the solar plexis to the collarbone.

7. A protective garment according to claim 6 wherein said releasable interconnecting fastening means comprise a pair of anchor straps each secured at one end to said inner layer by stitching extending through said straps, said unitary pad and said fabric sheath, whereby the opposite ends of said anchor straps may pass through said outer layer for releasable interconnection.

8. A protective garment according to claim 6 wherein said inner layer comprises additional wing pads having separate cushioning material enclosed within a sheath, each of said wing pads having a peripheral flange projecting beyond the perimeter of its cushioning material, said flanges being secured to the peripheral flange of the sheath of said unitary pad to afford hinge-like articulation of said wing pad relative to said unitary pad.

9. A protective garment according to claim 8 wherein said wing pads are of a material having a cushion effect stiffer than the cushion effect of the unitary pad underlying said shell.

10. A protective garment according to claim 8 wherein said wing pads comprise shoulder pads and comprise a protective shell in the form of an arcuate plate of stiff, shock-resistance lightweight material having a central offset providing a reinforcement against deflection, the cushioning material of said shoulder pads corresponding in stiffness to the cushioning material of said unitary pad.

11. A protective garment according to claim 1 wherein said flexible straps are permanently connected to said plates and are of a width and stiffness so as to restrict flexing of the straps except along the hinge axis extending between said adjacent plates.

12. A protective garment according to claim 1 wherein the interconnected plate elements have a perimeter and including supplemental plate elements mounted on said inner layer beyond the perimeter of said interconnected plate elements, each of said supplemental plates being of a stiff, lightweight, shock-resistant material and having at least one pair of eyelets comprising spaced parallel slots penetrating through the associated plate elements, and anchor straps mounted on the inner layer, extending through said spaced-parallel slots and having releasable fasteners interconnecting the straps to releasably mount said supplemental plate elements on said inner layer.

13. A protective garment according to claim 1 wherein said outer shell layer comprises intermediate plate elements with overlapping edges.

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14. A protective garment for the torso of a body for use by baseball umpires comprising in combination

an inner layer in the forms of a flexible pad adapted to conform to the contour of the entire frontal area of the upper torso and having an inner surface adapted to confront the torso, an outer surface facing outwardly from the torso, and a perimeter defining the outlines of said inner and outer surfaces, said layer including an intermediate thickness of cushioning material between said inner and outer surfaces,

an outer shell layer covering the entire frontal area of the upper torso and adapted to overlie said inner layer and comprising a plurality of interconnected plate elements, each plate element being positioned and arranged to overlie a selected area of the torso, and means interconnecting said plate elements to form a torso-fitting shell overlying said inner layer,

said cushioning material adapted to distribute impacts against a given area of the outer layer over an area of the inner layer which is at least as great as said given area,

said interconnecting means comprising at least one flexible strap spanning between adjacent first and second plate elements of said plurality, said strap having one end connected to one element and the other end connected to the adjacent element and being of a length to provide a clearance space between the adjacent elements to afford hinge-like displacement of said adjacent plate elements, said clearance space being less than the diameter of a baseball,

said interconnecting means also including a second inflexible plate connector between two other plate elements of said plurality, said other plate elements having marginal edges positioned in confronting adjacent relation, said second connector comprising a cover element overlying the confronting marginal edges of said two other plate elements, said cover element being interconnected with each of said two other elements along said confronting marginal edges, and said plate elements and said cover element being a stiff, shock-resistant, lightweight material,

said cover element of said shell providing a substantially rigid interconnection between said two other plate elements with an area of multiple thickness along each of the confronting marginal edges of said two other elements.

15. A protective garment according to claim 14 wherein said outer shell includes additional plate elements extending beyond the inner layer, said additional plate elements having individual pads secured thereto, said individual pads having inner and outer surfaces confronting respectively the torso and the additional plate element and an intermediate thickness of soft cushioning material therebetween.

16. A protective garment according to claim 15 including flexible straps connecting said additional plates to said shell,

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said flexible straps affording hinged movement of said additional plates relative to said shell and also affording pivotal movement of said additional plates about an axis perpendicular to one of said plates.

17. A protective garment according to claim 14 wherein said plate elements include at least one pair of eyelets comprising spaced-parallel slots penetrating through the associated plate element, said shell being connected to said inner layer by anchor straps mounted on the inner layer, extending through said spaced-parallel slots and having releasable fasteners interconnecting the straps to releasably mount said shell on said inner layer.

18. A protective garment according to claim 17 wherein said releasable interconnecting fasteners comprise complementary hook-and-loop fastener strips on said anchor straps.

19. A protect garment according to claim 14 wherein said two other plate elements comprise substantially flat marginal portions with an elevated central portion, said elevated central portion having a height greater than the thickness of said cover element.

20. A protective garment according to claim 19 wherein said raised center portions have a pair of eyelets therein in the form of spaced-parallel slots, said inner layer including anchor straps adapted to pass through said eyelets and being releasably interconnected on the outer face of said center portion to anchor said two other plate elements to said inner layer.

21. A protective garment according to claim 14, said plurality of plate elements comprising arcuately-formed elements adapted to overlie the upper part of the collarbone, said two additional plates and cover element adapted to overlie the breastbone so that the breastbone is protected by said multiple thickness of plate, and additional selected plates of said plurality adapted to overlie the rib cage.

22. A protective garment according to claim 1 wherein said adjacent plate elements comprise a first breastplate and a second plate disposed below said first plate, at least one of said plates comprising a unitary structure extending across the full width of the frontal area of the torso, the first plate having a lower edge, and the second plate having an upper edge confronting said lower edge and spaced therefrom to create said clearance space, said flexible strap extending across said edges and said clearance space, and being permanently connected to each plate adjacent its respective confronting edge.

23. A protective garment according to claim 22 wherein said confronting edges are straight and parallel to each other where said strap extends across them to preserve said limited clearance space during said hinge-like displacement.

24. A protective garment according to claim 23 wherein the confronting edge of said unitary structure is straight and horizontal across its width, and said at least one flexible strap comprises a pair of flexible straps spaced apart along the width of said horizontal confronting edge.

* * * * *

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August 22, 2006

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Venus Knitting Mills, Inc.
140 Spring Street
Suite #1
Murray Hill, New Jersey 07974

Re: Patent Infringement

Dear Sir/Madam:

Our firm represents Joseph H. West in connection with patent matters relating to the patented West Vest Umpire Chest Protector.

Mr. West has furnished us with a copy of your VSPORT "UPRO" chest protector.

We have evaluated the VSPORT "UPRO" chest protector in comparison with the claims to protective garments set forth in Mr. West's United States Patent No. 5,530,966 ("the West Patent"). On the basis of that comparison, we believe that the VSPORT "UPRO" chest protector infringes a large number of the twenty-four claims in the patent. Under United States Patent Law, infringement of a patent is caused by the manufacture and/or the sale in the United States of a product covered by at least one of the claims in the patent. It is our understanding that your company is selling as well as manufacturing the VSPORT "UPRO" chest protector.

Mr. West is outraged by your infringement of his United States Patent, particularly as he believes that the infringement has been willful, with full knowledge of the existence

EXHIBIT



Venus Knitting Mills, Inc.

August 22, 2006

Page - 2 -

of his patent on the product. As you know, Wilson Sporting Goods manufactures a chest protector covered by the claims of the West Patent under license from Mr. West. That chest protector provides ample notice of the existence of the West Patent by the listing of the patent number. Under United States Patent Law, the listing of the patent number on the chest protector of Wilson Sporting Goods provides notice to the public, including Venus Knitting Mills, of the West Patent.

We demand that Venus Knitting Mills immediately cease and desist from any further manufacture of the VSPORT "UPRO" chest protector and any other chest protectors infringing Mr. West's patent.

Further, we demand that Venus Knitting Mills and its agent and employees take immediate steps to cease and desist from further sale of the VSPORT "UPRO" chest protector and any other chest protectors infringing Mr. West's patent.

In addition, we demand a full accounting of sales of chest protectors manufactured by Venus Knitting Mills. Also we demand a list of all purchasers of VSPORT "UPRO" chest protectors so that we can take corrective measures. Moreover, we demand to know the number of chest protectors in inventory and demand that they be given up to us.

I emphasize that we are holding Venus Knitting Mills responsible for the manufacture and sale of the infringing chest protectors. We regard as immaterial whether Venus Knitting Mills has an indemnity or cause of action against any third party that may produce components for the VSPORT "UPRO" chest protector or act as a sale agent.

We will expect to hear from you or your attorneys within fifteen (15) days from the date of this letter confirming that Your Company is complying immediately with the demands enumerated above. Unless we receive satisfactory and immediate compliance with our demands, Mr. West is prepared to enforce his rights by seeking an injunction, damages, your profits and Mr. West's attorneys' fees, as well as seeking recall and destruction of the offending chest protectors and increased damages for Venus Knitting Mills' willful infringement, including lost profits.

It is our hope that a resort to legal action will be unnecessary and that this matter can be resolved in a business-like and economical manner. However, in light of the willfulness of the infringement, Mr. West will not tolerate your non-compliance with the

Venus Knitting Mills, Inc.
August 22, 2006
Page - 3 -

demands set forth herein, which can surely be obtained in a court proceeding.

Sincerely,

LAW OFFICES OF
JENNIFER ETZRODT, P.C.


Robert J. Opalka, Esquire

RJO:lf
Cc: Joseph H. West
John S. Child, Jr., Esquire
P:\WestJoe\060822VenusKnitting.doc

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7004 1160 0001 3379 0161

Sent To
Venus Knitting Mills Inc.
 Street, Apt. No.
 or PO Box No. **Ste #1 - 140 Spring St.**
 City, State, ZIP+4
Murray Hill, N.J. 07914

PS Form 3800, June 2002 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
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<p>1. Article Addressed to:</p> <p>Venus Knitting Mills Inc. Ste #1 140 Spring St. Murray Hill N.J. 07914</p>		<p>B. Received by (Printed Name) ABBOU</p> <p>C. Date of Delivery 8-28-06</p>	
<p>2. Article Number (Transfer from service label)</p> <p>7004 1160 0001 3379 0161</p>		<p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail</p> <p><input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>	
<p>PS Form 3811, February 2004</p>		<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p> <p>Domestic Return Receipt 102595-02-M-1540</p>	

LAW OFFICES OF
JENNIFER COURTNEY, P.C.

301 OXFORD VALLEY ROAD
SUITE 1902A
YARDLEY, PA 19067

JENNIFER COURTNEY*
Formerly Jennifer Courtney Etzrodt
ROBERT J. OPALKA
KAMI MILLER

TELEPHONE: (215) 493-3360
FACSIMILE: (215) 493-8119
jcourtney@courtneylaw.net
ropalka@courtneylaw.net
kmiller@courtneylaw.net

*ALSO MEMBER OF NJ BAR

September 26, 2006

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

All American Sports Shop
325 Hudson Street
Hackensack, New Jersey 07601

Re: Patent Infringement

Dear Sir/Madam:

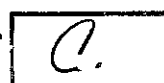
Our firm represents Joseph H. West in connection with patent matters relating to the patented West Vest Umpire Chest Protector.

We have obtained a copy of your All American Pro Chest Protector, Model #AA39.

We have evaluated the All American Pro Chest Protector in comparison with the claims to protective garments set forth in Mr. West's United States Patent No. 5,530,966 ("the West Patent"). On the basis of that comparison, we believe that the All American Pro Chest Protector infringes a large number of the twenty-four claims in the patent. Under United States Patent Law, infringement of a patent is caused by the manufacture and/or the sale in the United States of a product covered by at least one of the claims in the patent. It is our understanding that your company is selling as well as manufacturing the All American Pro Chest Protector.

Mr. West is outraged by your infringement of his United States Patent, particularly as he believes that the infringement has been willful, with full knowledge of the existence

EXHIBIT



All American Sports Shop
September 26, 2006
Page - 2 -

of his patent on the product. As you know, Wilson Sporting Goods manufactures a chest protector covered by the claims of the West Patent under license from Mr. West. That chest protector provides ample notice of the existence of the West Patent by the listing of the patent number. Under United States Patent Law, the listing of the patent number on the chest protector of Wilson Sporting Goods provides notice to the public, including All American Sports Shop.

We demand that All American Sports Shop immediately cease and desist from any further manufacture of the All American Pro Chest Protector and any other chest protectors infringing Mr. West's patent.

Further, we demand that All American Sports Shop and its agent and employees take immediate steps to cease and desist from further sale of the All American Pro Chest Protector and any other chest protectors infringing Mr. West's patent.

In addition, we demand a full accounting of sales of chest protectors manufactured as the All American Pro Chest Protector. Also we demand a list of all purchasers of All American Pro Chest Protectors so that we can take corrective measures. Moreover, we demand to know the number of chest protectors in inventory and demand that they be given up to us.

I emphasize that we are holding All American Sports Shop responsible for the manufacture and sale of the infringing chest protectors. We regard as immaterial whether All American Sports Shop has an indemnity or cause of action against any third party that may produce components for the All American Pro Chest Protector or act as a sale agent.

We will expect to hear from you or your attorneys immediately confirming that Your Company is complying immediately with the demands enumerated above. Unless we receive satisfactory and immediate compliance with our demands, Mr. West will enforce his rights by seeking an injunction, damages, your profits and Mr. West's attorneys' fees, as well as seeking recall and destruction of the offending chest protectors and increased damages for All American Sports Shop willful infringement, including lost profits.

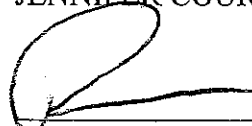
It is our hope that this matter can be resolved in a business-like and economical manner. However, in light of the willfulness of the infringement, Mr. West will not tolerate your non-compliance with the demands set forth herein, which can surely be

All American Sports Shop.
September 26, 2006
Page - 3 -

obtained in a court proceeding. Mr. West has successfully prosecuted the rights to his umpire's chest protector in the past and will not hesitate to do so again.

Sincerely,

LAW OFFICES OF
JENNIFER COURTNEY, P.C.

A handwritten signature in black ink, appearing to be 'R. Opalka', written over a horizontal line.

Robert J. Opalka, Esquire

RJO:lf

Cc: Joe H. West

John Child, Jr. Esquire

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 Street, Apt. No. 325 Hudson St.
 or PO Box No.
 City, State, Zip+4 Hackensack, N.J. 07601

PS Form 3800, June 2002 See Reverse for Instructions

8049 9929 2000 0116 5002

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Alh American Sports Shop
325 Hudson St.
Hackensack, N.J.
07601

COMPLETE THIS SECTION ON DELIVERY

- A. Signature [Signature] ☒ Agent ☐ Addressee
- B. Received by (Printed Name) Leary C. Date of Delivery 09-28
- D. Is delivery address different from item 1? ☐ Yes ☐ No
 If YES, enter delivery address below:

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.
4. Restricted Delivery? (Extra Fee) ☐ Yes ☐ No

2. Article Number

(Transfer from service label)

7005 3110 0002 6766 6408

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

LAW OFFICES OF
JENNIFER COURTNEY, P.C.

301 OXFORD VALLEY ROAD
SUITE 1902A
YARDLEY, PA 19067

JENNIFER COURTNEY*
Formerly Jennifer Courtney Etzrodt
ROBERT J. OPALKA
KAMI MILLER

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FACSIMILE: (215) 493-8119
jcourtney@courtneylaw.net
ropalka@courtneylaw.net
kmiller@courtneylaw.net

*ALSO MEMBER OF NJ BAR

October 4, 2006

VIA TELEFAX (413) 451-9734
Pro-Ref Sportswear, Inc.

Re: Patent Infringement

Dear Sir/Madam:

Our firm represents Joseph H. West in connection with patent matters relating to the patented West Vest Umpire Chest Protector.

We have obtained a copy of the All American Pro Chest Protector, Model #AA39 that you sell.

We have evaluated the All American Pro Chest Protector in comparison with the claims to protective garments set forth in Mr. West's United States Patent No. 5,530,966 ("the West Patent"). On the basis of that comparison, we believe that the All American Pro Chest Protector infringes a large number of the twenty-four claims in the patent. Under United States Patent Law, infringement of a patent is caused by the manufacture and/or the sale in the United States of a product covered by at least one of the claims in the patent. It is our understanding that your company is selling the All American Pro Chest Protector that is manufactured by All American Sports Shop.

Mr. West is outraged by your infringement of his United States Patent, particularly as he believes that the infringement has been willful, with full knowledge of the existence of his patent on the product. As you know, Wilson Sporting Goods manufactures a chest protector covered by the claims of the West Patent under license from Mr. West. That chest protector provides ample notice of the existence of the West Patent by the listing of the patent number. Under United States Patent Law, the listing of the patent number on

EXHIBIT 

Pro-Ref Sportswear

October 4, 2006

Page - 2 -

the chest protector of Wilson Sporting Goods provides notice to the public, including Pro-Ref Sportswear of the West Patent.

We demand that Pro-Ref Sportswear and its agent and employees take immediate steps to cease and desist from further sale of the All American Pro Chest Protector and any other chest protectors infringing Mr. West's patent.

In addition, we demand a full accounting of sales of All American Pro Chest Protectors by Pro-Ref Sportswear. Also we demand a list of all purchasers of All American Pro Chest Protectors so that we can take corrective measures. Moreover, we demand to know the number of chest protectors in inventory and demand that they be given up to us.

I emphasize that we are holding Pro-Ref Sportswear responsible for the sale of the infringing chest protectors. We regard as immaterial whether Pro-Ref Sportswear has an indemnity or cause of action against any third party that may produce components for the All American Pro Chest Protector or act as a sale agent.

We will expect to hear from you or your attorneys immediately confirming that Your Company is complying immediately with the demands enumerated above. Unless we receive satisfactory and immediate compliance with our demands, Mr. West will enforce his rights by seeking an injunction, damages, your profits and Mr. West's attorneys' fees, as well as seeking recall and destruction of the offending chest protectors and increased damages for Pro-Ref Sportswear's willful infringement, including lost profits.

It is our hope that this matter can be resolved in a business-like and economical manner. However, in light of the willfulness of the infringement, Mr. West will not tolerate your non-compliance with the demands set forth herein, which can surely be obtained in a court proceeding. Mr. West has successfully prosecuted the rights to his umpire's chest protector in the past and will not hesitate to do so again.

Sincerely,

LAW OFFICES OF
JENNIFER COURTNEY, P.C.

RJO:lf

Cc: Joe H. West

John Child, Jr., Esquire

Robert J. Opalka, Esquire